

**ABSTRACT**

An opto-electrical device comprising an anode electrode, a cathode electrode, and an opto-electrically active region located between the electrodes, the cathode electrode including a first layer comprising a compound of a group 1 metal, group 2 metal, or a transition metal, a second layer comprising a material having a work function below 3.5 eV, and a third layer spaced from the opto-electrically active region by the first and second layers and having a work function above 3.5 eV.